

**Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services**

STATEMENT OF BASIS

Lafayette Consolidated Government
Lafayette Utilities System/Hargis-Hebert Generating Station
Lafayette, Lafayette Parish, Louisiana
Agency Interest Number: 121572
Activity Number: PER20060001
Proposed Permit Number: 1520-00131-V1

I. APPLICANT

Company:

Lafayette Consolidated Government/Lafayette Utilities Systems
PO Box 4017-C
Lafayette, Louisiana 70502-4017

Facility:

Hargis-Hebert Generating Station
300 Beau Pre Rd
Lafayette, Lafayette Parish, Louisiana
596970 mE 3337989 mN

II. FACILITY AND CURRENT PERMIT STATUS

Hargis-Hebert Electric Generating Station is an existing public power plant facility. Lafayette City Parish Consolidated Government owns Hargis-Hebert Electric Generating Station and is operated by Lafayette Utilities System. Hargis-Hebert Electric Generating Station currently operates under Permit No. 1520-00131-V0, issued September 7, 2004.

This is a significant modification to the Part 70 operating permit for the facility.

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III. PROPOSED PROJECT/PERMIT INFORMATION

Application

A permit application and Emission Inventory Questionnaire were submitted by Lafayette Utilities System/Lafayette Consolidated Government on May 1, 2006, requesting a modification to the Part 70 operating permit. Additional information dated May 29, 2007 was also received.

Project

Lafayette Utilities System (LUS) operates the Hargis-Hebert Electric Generating Station in Lafayette Parish. The station has a nominal output of 100 megawatts and is used to meet peak electricity demand. The facility consists of two natural gas fired combustion turbines and generator sets, two cooling towers, two inlet air chillers, water storage tanks, and a control building. An emergency start-up diesel generator is available in the event of the loss of power from the transmission grid.

The modifications at the Hargis-Hebert Electric Generating Station include the following:

- Update and clarify requirements regarding 40 CFR 60 Subpart GG.
- Update insignificant activities.
- Remove the startup/shut down emissions as General Condition XVII activities and include them as part of the permitted annual emissions total.

Lafayette Utilities System/Lafayette Consolidated Government is also requesting an initial Clean Air Interstate Rule (CAIR) Permit and an Acid Rain Permit Renewal.

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Permitted Air Emissions

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	16.80	16.80	-
SO ₂	7.42	8.25	+0.83
NO _x	241.37	241.37	-
CO	241.48	239.11	-2.37
VOC	27.32	27.32	-

VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

<u>Pollutant</u>	<u>Emissions (TPY)*</u>
1,3-Butadiene	0.001
Acetaldehyde	0.110
Acrolein	0.018
Benzene	0.030
Ethylbenzene	0.090
Formaldehyde	2.030
Naphthalene	0.004
Toluene	0.370
Xylene	0.180
Propylene Oxide	0.006
PAH	0.080
Total	2.919

*TAPs estimated emissions are calculated based on total annual fuel combustion of 5,712,000 MMBtu/yr.

IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

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XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source		
ID No:	Requirement	Notes
EQT 1 and EQT 2 U-1 LM6000 Combustion Turbine	LAC 33:III. Chapter 51	DOES NOT APPLY. Facility is not a major source of Toxic Air Pollutants.
UNFI Hargis-Hebert Electric Generating Station	40 CFR 64 Compliance Assurance Monitoring	DOES NOT APPLY. The unit does not use a control device to achieve compliance.

The above table provides explanation for both the exemption status or non-applicability of a source cited by 1, 2 or 3 in the matrix presented in Section X (Table 1) of this permit.

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Prevention of Significant Deterioration/Nonattainment Review

PSD does not apply.

Streamlined Equipment Leak Monitoring Program

Unit or Plant Site	Program Being Streamlined	Stream Applicability	Overall Most Stringent Program
Hargis-Hebert Generating Station	-	-	-

MACT Requirements

MACT does not apply.

Air Quality Analysis

Emissions associated with the proposed facility were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. LDEQ did not require the applicant to model emissions.

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

V. PERMIT SHIELD

LUS was previously granted a permit shield from the performance testing requirements under 40 CFR 60.335(b) and (c)(3). LUS shall use the provisions of 40 CFR Part 75, which include an initial CEMS certification per the testing requirement methods of Appendix A, to demonstrate compliance with the standard for NOx.

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VI. PERIODIC MONITORING

Hargis-Hebert Generating Station will monitor Turbines U-1 and U-2 for nitrogen oxides continuously using a continuous emission monitor as specified in 40 CFR 60.334(b)(1) through (b)(3).

VII. GLOSSARY

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide (H₂S) – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C ("Prevention of Significant Deterioration of Air Quality") and D ("Nonattainment New Source Review").

Nitrogen Oxides (NO_x) – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane (CH₄), Ethane (C₂H₆), Carbon Disulfide (CS₂)

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: ≥ 10 tons per year of any toxic air pollutant; ≥ 25 tons of total toxic air pollutants; and ≥ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM₁₀ – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

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Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO₂) – An oxide of sulfur.

Sulfuric Acid (H₂SO₄) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.